

Dear Professor Ryan Alvarado:

Student Opinion of Teaching Questionnaire Results

This form contains survey results for ANALYTC GEOMETRY & CALCULUS 2(MATH-0230)-1010.

Attached is a report in PDF format containing your Student Opinion of Teaching Survey results from last term. The report is best viewed and/or printed in color.

The evaluation results are broken down into three distinct categories. The first part of the report shows a breakdown of student responses to the quantitative questions. For each item, the number of students (n) who responded, the average or mean (av.) and standard deviation (dev.) are displayed next to a chart or histogram that shows the percentage of the class who responded to each option for that question. The percentages are above the number on the rating scale which increases from left to right, i.e. the number 1 equals the least favorable rating and the number 4 or 5 (depending on the scale) equals the most favorable rating. The sum of percentages will equal 100%. A red mark is displayed on the chart where the average or mean is located. To calculate how many students responded to each option, multiply the number of students who answered the question by the percentage for that option. For example, if 14 students answered the question and 50% responded to option 3 then 7 students marked option 3 for that item (14 x .50 = 7). The standard deviation is a common measure of dispersion around the mean that may be useful in interpreting the results.

If your school had previously calculated norms, they will be on OMET's website (omet.pitt.edu).

The second part displays individual comments to each question in the open-ended section of the evaluation. All the responses to the first question will be listed together after the first question and then the responses to the next question will be listed together after the next question, and so on.

The final part gives you a profile of the student responses to the quantitative section of the evaluation. This is a chart listing all of the means for the scaled items with a dashed red line connecting the means.

If the number of respondents for any of the scaled items is fewer than seven, please be cautious in interpreting the quantitative results.

Office of Measurement and Evaluation of Teaching (OMET)

Professor Ryan Alvarado ANALYTC GEOMETRY & CALCULUS 2(MATH-0230)-10102161 UPITT MATH 0230 SEC1010 Fall 2015 37 RESPONDENTS = 52.11% OF NUMBER REGISTERED 1. SELF RATINGS 21.6% 35.1% 5.4% 8.1% 29.7% n=37 av.=3.76 dev.=1.14 1.1) Compared to other courses at the same level, the Much less Much more I amount of work I did was: 2 3 4 5 1 2.7% 0% 27% 27% 43.2% 1.2) In this course I have learned: n=37 av.=4.08 Much less Much more dev.=0.98 ^{1.3)} The grade I expect in this course is: n=37 24.3% А В 35.1% C (29.7% D 2.7% F 2.7% Other (5.4% 2. TEACHING EVALUATION 13.5% 45.9% ٥% 2.7% 37.8% 2.1) The instructor presented the course in an organized n=37 av.=4.19 dev.=0.78 Hardly at all To a very high degree manner. 4 0% 5.4% 10.8% 21.6% 62.2% ^{2.2)} The instructor stimulated my thinking. n=37 av.=4.41 dev.=0.9 Hardly at all To a very high degree 2 3 1 4 5 0% 54% 10.8% 32.4% 51 4% 2.3) The instructor evaluated my work fairly. n=37 Hardly at all To a very high degree I av.=4.3 dev.=0.88 2 3 5 0% 5.4% 16.2% 16.2% 62.2% 2.4) n=37 av.=4.35 dev.=0.95 The instructor made good use of examples to clarify Hardly at all To a very high degree I concepts. 2 3 4 5 0% 5.4% 10.8% 21.6% 62.2% 2.5) The instructor maintained a good learning n=37 av.=4.41 Hardly at all To a very high degree environment. dev.=0.9

1

2

3

4

5

2.6)	The instructor was accessible to students. (Do not answer if no basis to judge)	Hardly at all	3.8%	7.7%	3.8%	30.8%	53.8%	To a very high degree	n=26 av.=4.23 dev.=1.11
2.7)	Express your judgment of the instructor's overall teaching effectiveness:	Ineffective	1 0%	2 5.4%	3 8.1% 3	45.9%	5 40.5% 5	Excellent	n=37 av.=4.22 dev.=0.82
2.8)	Would you recommend this course to other students?								
		Definitely not						13.5%	n=37
		Probably not						13.5%	
		Probably yes						37.8%	
		Definitely yes						35.1%	
2.9)	Would you recommend this instructor to other students?								
		Definitely not						5.4%	n=37
		Probably not []						2.7%	
		Probably yes						18.9%	
		Definitely yes						73%	

3. TEACHING COMMENTS

- ^{3.1)} What were the instructor's major strengths?
- -did many examples to reinforce concepts
 -linked concepts together properly
 -accessible
- Ability to explain, fair tests, thorough when covering topics
- Always willing to meet outside of class for multiple hours to help in understanding the material, and supplied many example problems during class to make understanding much easier
- Clarity, friendliness
- Clear examples that went in depth.
- Dr. Alvarado closely follows the textbook, which I appreciate. He also typed up notes for us several times, and that was very helpful. Dr. Alvarado is also usually a friendly person in class.
- Dr. Alvarado was by far the best professor I have had this semester. He truly cares about his students' performance and provides a myriad of excellent examples to apply to the course material. He is also personable and makes a somewhat difficult course easier to handle. I will definitely be taking him again in a higher course.
- Easy going attitude with a deep understanding of the subject material and a knack for keeping the class on track. Relatable, approachable, and knowledgable.
- He is clear when explaining concepts and can actually connect with his students. He does everything well, thats what i'll say he is very well rounded.
- He is extremely smart and well spoken. Goes through exapmles to help understand concepts
- He loves math so it made it a much better environment to learn and understand from him.
- He made calculus fun, and making calc 2 fun is hard to do. First time around I hated calc 2 and now I wish I was still a math major, so congratulations to Mr. Alvarado. He was approachable for questions no matter how dumb. Lecture was rushed but he also made it enjoyable solely by his personality and humor. He stressed important concepts well. He is a great professor. He can relate thing so we understand them, he understands our questions. His exams were fair. His grading is fair. He is a great calc teacher!
- He presented material in a very concise and understandable way that really helped me pick up the material quickly.

- He provided a lot of helpful examples and practice problems to do after the lecture to help us understand more. He clearly explains concepts and is always open to questions.
- Held many office hours to help students who were behind on material
- I would say Dr. Alvarado's main strengths are his willingness to stop during lecture to explain a concept further and also his efficiency at presenting immense amounts of material (including a lot of examples) during the 2.5 hours a week we see him. Also he's always available for a little after lecture ends if anyone has other questions they need clarified.
- In going over examples to show eplicitly how the problems were worked out. Also his comic relief when needed and being able to relate to people our age.
- Informative lectures, evident examples, clear instuctions
- Made the class fun, covered material that we were supposed to learn effectively.
- Professor Alvarado continually presented the class material in an orderly and streamlined way. Though he did take notes from the textbook (as far as I know), it was not at all boring or too wordy. He kept it interesting and he taught fairly conversationally, which is really helpful for a difficult course like Calc 2.
- Professor Alvarado goes over many examples in class to try to clarify concepts. He seems to be passionate about teaching and wants to help students learn.
- Provided the necessary information, and backed it up with concrete examples. Additionally, the examples were often similar to test questions, rewarding active class members. He was Gold!
- Really knew and was interested in the material he was teaching
- Ryan is extremely thorough in all of his explanations. I took this class last semester, and didn't understand the material nearly as much as I do now.
- Ryan is friendly and reachable. He avails himself to students both personally, as an enjoyable, down-to-earth individual, and educationally, whenever they may have a question or a problem with the material. He is capable of making concepts clear in a quick, refined manner.
- Speed.
- The course was presented in roughly the correct order. The single redemption policy of the final replacing either worse midterm grade.
- The instructor is extremely well versed in the subject of Calculus. He rather approachable for questioning about examples, questions, and concerns. He also has a good sense of humor.
- Thorough use of examples
- Very energetic, good explanation of material
- Very engaging Willingness to answer questions and clarify concept in lecture & during office hours
- Very good at explaining how to solve problems and why to solve them that way. Makes the class interesting
- Very organized. Knew what he was going to teach and made sure he got that done.
- clarity, good at explaining concepts with examples.

^{3.2)} What were the instructor's major weaknesses?

- -presented material very fast
- A little intimidating
- At times, especially during the first few weeks of the course, the instructor and the class pace seemed noticeably rushed. Courses can move at a fast pace and maintain understanding from its students, but when the instructor seems to be rushing, it is difficult for students to handle and it can add to an overwhelming feeling given by the course. Also, the instructor often uses few examples, that cover multiple concepts at once. At times, this methodology becomes quite convoluted and difficult to follow. I recall a specific example during the Partial Fraction Decomposition section of the course.
- Didn't wait to see if concept was fully understood.
- Goes over material very quickly, difficult questions that require extra algebra to solve (might be a good thing)

- Goes really fast in class, but kind of has to.
- Handwriting
- He encouraged questions, but there was no real participation from students. I would have liked more opportunities for in-class participation (using clickers, for example).
- He is usually a few minutes late, and his hand writing does tend to get sloppier as class continues. Maybe give him a room with boards that everyone can see without having weird angles.
- His formalism ignored several techniques I had learned previously, like integration by-parts, trig sub, series, and diff eq. Kind of a hot shot young prof. Also, DIff EQ should have been after integration techniques, and taylor series last. Finally, not recognizing this course as an unnecessary weeder course to SOME students, and helping them out.
- I can not really think of any major weaknesses really except that his handwriting is not great and therefore his notes on the board can be hard to decipher and follow in class since he covers a lot of material in a short amount of time.
- No weaknesses, his teaching methods are extremely effective.
- None
- None to speak of.
- Not many, sometimes handwriting was a little hard to read
- Notes are very messy
- Often assumed students knew concepts because they seemed obvious to him
- Possibly drinks too much coffee, sometimes professor is very hyper and loud
- Probably the biggest weakness would be handwriting. It's sometimes pretty hard to understand what's written on the board and then I'll take a little too much time trying to figure that out. And during that time new material is already being presented, so I have to try to catch back up with where we are in the lecture.
- Says everything is gonna be easy, nothing is easy, nothing, (tear drips down face onto laptop).
- Sometimes he can go kinda fast, but it's understandable because he has to get through a lot of material in one lecture.
- Sometimes he flew through things too quickly; though the material was orderly, it seemed rushed. Also, occasionally, if someone had a question, rather than answer or take the time to explain it fully, he would just say "think about it." I don't think he tried to be mean, per se, but sometimes it came off that way... which isn't always helpful in fostering in an environment in which students feel comfortable engaging with the professor.
- Sometimes moving too quickly over the material but I'm not sure how that could be improved due to the large amount of subject that needed to be covered
- Sometimes the pace of the course can lead to valuable explanations being left behind, or for things which may not be completely clear being assumed to be so.
- Sometimes went quickly without real depth to examples. Caused students to not understand in lecture but if they took down notes could understand after going back over them.
- The emphasis on certain material felt a little misleading compared to its representation on the test
- The lectures would go very fast
- Very fast teaching in the beginning but made up for it on the material we have never seen before.
- moves pretty fast and is pretty intense
- none
- perhaps a little to brisk of a pace in class. That might be due more to the course itself, however.

4. COURSE COMMENTS

- ^{4.1)} What aspects of this <u>course</u> were most beneficial to you?
- -learning series and difeq

- A majority of the entire course was beneficial to me. Almost all of the information I've learned in calc 2 was new to me, and learning new skills and understanding more applications of math is very important.
- Critical thinking skills, problem solving skills, helpful calculus concepts
- Going to lecture
- Helped me better understand calculus material; I especially enjoyed the digression to complex numbers, as they are one of my favorite mathematical concepts.
- I learned an unbelievable amount of math in a short time.
- I like having calc as a night class, that way there is less time wasted starting class and when students pack up at the end. The longer section was beneficial.
- I liked it being a night class
- IN depth knowledge of calculus II
- It felt like a hardcore Calculus class. I definitely feel like a hardened veteran at math.
- It was clear from day one that I had to really put in a lot of work if I wanted to succeed. While it was a pain sometimes, it was really beneficial.
- Learning calculus 2
- Learning fundamental calculus skills
- Lecture notes were helpful. Practice problems from book were very helpful.
- Meeting outside of class, example problems during lecture, and recitation all helped me understand more
- My higher level thinking of mathmatics. Also my further understanding of math. In addition the use of the phrase "This is gold."
- N/A
- Nothing
- Nothing its an absurd class teaching absurd things.
- Office hours
- Overall, good class.

Getting confusing concepts clarified in office hours was helpful. Also! Lab was very helpful for getting through difficult Lon Capa problems.

- Tests were based off things done in class and less straight from the textbook
- The LON CAPA assignments and class assignemts were very helpful in comprehending material.
- The amount of practice problems that were required. Practice makes perfect.
- The clarity and detail of his teaching habits
- The fast pace and coverage of material
- The instructor provided multiple sheets of typed notes for the students of the course to download, print, and use. Though the notes were simply copies of the notes taken during the lectures, they were helpful in understanding concepts and being able to read the hastily written notes of the instructor and in tern, the student.
- The lectures covered the material well, and did not require the use of the book to learn material.
- Vectors, a small amount of series, maybe?
- ^{4.2)} What suggestions do you have to improve the <u>course</u>?
- -have 3 test instead of 2
- Calc 2 as a requirement for a CS degree = retarded course work. Cmon pitt get with the real world and focus on practicality instead of academia. Help develop good employees for the real world instead of good researchers for your own benefit. It is sickening then level of

emphasis that is put on idiotic research topics like this instead of practice things that actually contribute to the world.

- Different structure for lectures -(i.e. Use handouts that have major concepts and let students fill in their own information to avoid excessive note taking)
- Get rid of Lon-Capa
- Give more time to learn the material or cut down on the material? I don't think that's happening though
- Go over material slower
- Have more class time.
- I can't really think of any ways to improve the course. I really like it although it is extremely challenging.
- I don't even know where to begin.
- Less emphasis on the LON_CAPA software. Not a huge fan We spend a good deal of time on the problems and receive no partial credit for incorrect answers. The formatting for answers can be an issue. It is hard to tell whether errors are syntactical or not.
- Less flying chalk in lecture.
- Lon Capa can be ridiculous sometimes, the problems are impossible. I also did not like having recitation directly after class.
- Lon Capa sucks, I'd prefer a better way of completing graded homework.
- More coffee before class, and a class crock pot dinner.
- More in-class participation for students
- More preparation for calc 3
- More time to practice before the exam
- N/A
- Nothing that I can think of
- Practice tests would have been very helpful.
- Remove it from the Computer Science major sheet. It really has no business being there. It is a wholly inappropriate requirement of no practical use to the study of computer science. If there needs to be a secondary math requirement (beyond calc 1 or even business calc), perhaps the math department could collaborate with the cs department to create a math course of topics one might encounter when studying various forms of computing. It simply needs to be a compatible math requirement on the major sheet. It would be easy! It wouldn't be so awful to the poor cs kids!
- Slower pace and possibly a different chunking of exam material
- Taking students' questions more seriously could be beneficial.
- To use a greater number of example problems during class time would be a great benefit, in my opinion. It may simply be my learning style, as my high school Calculus teacher taught in such a manner and was able to lead me to great success throughout my high school career. Also, it was mentioned that the instructor wrote notes for the classes on the half hour bus ride to the university. I understand that the course material still may be just as credible and valuable when conceptualized in this setting, but it seemed odd that so little time was spent in preparation for teaching concepts to students.
- none
- slow down when doing examples so that students have time to process.

Profile Subunit: **A&S-MATH LOWER LEVEL** Name of the instructor: Professor Ryan Alvarado, ANALYTC GEOMETRY & CALCULUS 2(MATH-0230)-1010 Name of the course: (Name of the survey) Values used in the profile line: Mean **1. SELF RATINGS** Compared to other courses at the same level, the amount of work I did was: Much more 1.1) Much less av.=3.76 md=4.00 dev.=1.14 n=37 1.2) In this course I have learned: Much more Much less av.=4.08 md=4.00 dev.=0.98 n=37 2. TEACHING EVALUATION 2.1) Hardly at all To a very high The instructor presented the course in an n=37 av.=4.19 md=4.00 dev.=0.78 organized manner. degree ^{2.2)} The instructor stimulated my thinking. Hardly at all To a very high av.=4.41 md=5.00 dev.=0.90 n=37 degree ^{2.3)} The instructor evaluated my work fairly. Hardly at all To a very high av.=4.30 md=5.00 dev.=0.88 n=37 degree 2.4) The instructor made good use of examples to Hardly at all To a very high av.=4.35 md=5.00 dev.=0.95 n=37 clarify concepts. degree 2.5) To a very high degree The instructor maintained a good learning Hardly at all av.=4.41 md=5.00 dev.=0.90 environment. n=37 The instructor was accessible to students. (Do not answer if no basis to judge) 2.6) Hardly at all To a very high av.=4.23 md=5.00 dev.=1.11 n=26 degree Express your judgment of the instructor's overall teaching effectiveness: 2.7) Excellent Ineffective av =4 22 md=4 00 dev =0 82 n=37